Jelena Klinovaja

List of Publications by Year
in descending order

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123 papers	6,436 citations	53794 45 h-index	69250 77 g-index

123 all docs	123 docs citations	123 times ranked	3087 citing authors

#	Article	IF	Citations
1	Laser-Controlled Real- and Reciprocal-Space Topology in Multiferroic Insulators. Physical Review Letters, 2022, 128, 037201.	7.8	11
2	Hole-spin qubits in Ge nanowire quantum dots: Interplay of orbital magnetic field, strain, and growth direction. Physical Review B, 2022, 105, .	3.2	20
3	Fractional spin excitations and conductance in the spiral-staircase Heisenberg ladder. Physical Review B, 2022, 105, .	3.2	0
4	Metallization and proximity superconductivity in topological insulator nanowires. Physical Review B, 2022, 105, .	3.2	6
5	Giant magnetochiral anisotropy from quantum-confined surface states of topological insulator nanowires. Nature Nanotechnology, 2022, 17, 696-700.	31.5	18
6	Quasiparticle poisoning in trivial and topological Josephson junctions. Physical Review B, 2022, 105, .	3.2	1
7	Quadrupole spin polarization as signature of second-order topological superconductors. Physical Review B, 2021, 103, .	3.2	22
8	Universality of Boundary Charge Fluctuations. Physical Review Letters, 2021, 126, 016803.	7.8	8
9	Fermi surface resonance and quantum criticality in strongly interacting Fermi gases. Physical Review B, 2021, 103, .	3.2	5
10	Tuning interactions between spins in a superconductor. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	28
11	Yu-Shiba-Rusinov states and ordering of magnetic impurities near the boundary of a superconducting nanowire. Physical Review B, 2021, 103, .	3.2	5
12	Insulating regime of an underdamped current-biased Josephson junction supporting <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi mathvariant="double-struck">Z</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:math> and <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi mathvariant="double-struck">Z</mml:mi><mml:mn>4</mml:mn></mml:msub></mml:math> parafermions. Physical Review B, 2021, 103, .	3.2	6
13	Clock model and parafermions in Rashba nanowires. Physical Review B, 2021, 103, .	3.2	4
14	Interaction-Stabilized Topological Magnon Insulator in Ferromagnets. Physical Review X, 2021, 11, .	8.9	40
15	Fractional boundary charges with quantized slopes in interacting one- and two-dimensional systems. Physical Review B, 2021, 104, .	3.2	5
16	Chiral hinge magnons in second-order topological magnon insulators. Physical Review B, 2021, 104, .	3.2	24
17	Local and nonlocal quantum transport due to Andreev bound states in finite Rashba nanowires with superconducting and normal sections. Physical Review B, 2021, 104, .	3.2	37
18	Majorana bound states in semiconducting nanostructures. Journal of Applied Physics, 2021, 130, .	2.5	34

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19	Universality of Abelian and non-Abelian Wannier functions in generalized one-dimensional Aubry-AndrÃ©-Harper models. Physical Review Research, 2021, 3, .	3.6	3
20	Majorana bound states in topological insulators without a vortex. Physical Review B, 2021, 104, .	3.2	24
21	Helical liquids in semiconductors. Semiconductor Science and Technology, 2021, 36, 123003.	2.0	19
22	Majorana bound states induced by antiferromagnetic skyrmion textures. Physical Review B, 2021, 104, .	3.2	17
23	Majorana zero modes and their bosonization. Physical Review B, 2020, 102, .	3.2	6
24	Superconducting Quantum Interference in Edge State Josephson Junctions. Physical Review Letters, 2020, 125, 157701.	7.8	8
25	Magnonic Quadrupole Topological Insulator in Antiskyrmion Crystals. Physical Review Letters, 2020, 125, 207204.	7.8	33
26	Kramers pairs of Majorana corner states in a topological insulator bilayer. Physical Review B, 2020, 102, .	3.2	27
27	From Andreev to Majorana bound states in hybrid superconductorâ€“semiconductor nanowires. Nature Reviews Physics, 2020, 2, 575-594.	26.6	251
28	Hinge modes and surface states in second-order topological three-dimensional quantum Hall systems induced by charge density modulation. Physical Review B, 2020, 102, .	3.2	7
29	First-Order Magnetic Phase Transition of Mobile Electrons in Monolayer <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>MoS</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn></mml:mrow> Physical Review Letters, 2020, 124, 187602.	7.8	22
30	Magnetic-Field-Independent Subgap States in Hybrid Rashba Nanowires. Physical Review Letters, 2020, 125, 017701.	7.8	38
31	Topological invariants to characterize universality of boundary charge in one-dimensional insulators beyond symmetry constraints. Physical Review B, 2020, 101, .	3.2	21
32	Surface charge theorem and topological constraints for edge states: Analytical study of one-dimensional nearest-neighbor tight-binding models. Physical Review B, 2020, 101, .	3.2	18
33	Electronic transport in one-dimensional Floquet topological insulators via topological and nontopological edge states. Physical Review B, 2020, 101, .	3.2	12
34	Pinning of Andreev bound states to zero energy in two-dimensional superconductor- semiconductor Rashba heterostructures. Physical Review B, 2020, 102, .	3.2	15
35	Chiral magnonic edge states in ferromagnetic skyrmion crystals controlled by magnetic fields. Physical Review Research, 2020, 2, .	3.6	47
36	Majorana and parafermion corner states from two coupled sheets of bilayer graphene. Physical Review Research, 2020, 2, .	3.6	29

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37	Magnetically confined bound states in Rashba systems. Physical Review Research, 2020, 2, .	3.6	11
38	Majorana bound states in topological insulators with hidden Dirac points. Physical Review Research, 2020, 2, .	3.6	7
39	Rational boundary charge in one-dimensional systems with interaction and disorder. Physical Review Research, 2020, 2, .	3.6	12
40	Critical current for an insulating regime of an underdamped current-biased topological Josephson junction. Physical Review Research, 2020, 2, .	3.6	4
41	Quantum damping of skyrmion crystal eigenmodes due to spontaneous quasiparticle decay. Physical Review Research, 2020, 2, .	3.6	14
42	Universal conductance dips and fractional excitations in a two-subband quantum wire. Physical Review Research, 2020, 2, .	3.6	4
43	Chiral one-dimensional Floquet topological insulators beyond the rotating wave approximation. Physical Review B, 2019, 100, .	3.2	16
44	Coherent backaction between spins and an electronic bath: Non-Markovian dynamics and low-temperature quantum thermodynamic electron cooling. Physical Review B, 2019, 100, .	3.2	2
45	Majorana fermions in magnetic chains. Progress in Particle and Nuclear Physics, 2019, 107, 1-19.	14.4	44
46	Majorana bound states in double nanowires with reduced Zeeman thresholds due to supercurrents. Physical Review B, 2019, 99, .	3.2	18
47	Degeneracy lifting of Majorana bound states due to electron-phonon interactions. Physical Review B, 2019, 99, .	3.2	19
48	Topological Magnons and Edge States in Antiferromagnetic Skyrmion Crystals. Physical Review Letters, 2019, 122, 187203.	7.8	97
49	Second-Order Topological Superconductivity in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>Ï€</mml:mi></mml:math> -Junction Rashba Layers. Physical Review Letters, 2019, 122, 126402.	7.8	124
50	Entangling spins in double quantum dots and Majorana bound states. Physical Review B, 2019, 99, .	3.2	15
51	Floquet second-order topological superconductor driven via ferromagnetic resonance. Physical Review Research, 2019, 1, .	3.6	53
52	Fractional topological superconductivity and parafermion corner states. Physical Review Research, 2019, 1, .	3.6	49
53	Metallization of a Rashba wire by a superconducting layer in the strong-proximity regime. Physical Review B, 2018, 97, .	3.2	71
54	Suppression of the overlap between Majorana fermions by orbital magnetic effects in semiconducting-superconducting nanowires. Physical Review B, 2018, 97, .	3.2	29

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55	Majorana Kramers pairs in Rashba double nanowires with interactions and disorder. Physical Review B, 2018, 97, .	3.2	36
56	Topological phase detection in Rashba nanowires with a quantum dot. Physical Review B, 2018, 97, .	3.2	50
57	Effects of nuclear spins on the transport properties of the edge of two-dimensional topological insulators. Physical Review B, 2018, 97, .	3.2	49
58	Majorana Kramers Pairs in Higher-Order Topological Insulators. Physical Review Letters, 2018, 121, 196801.	7.8	162
59	Zero-energy Andreev bound states from quantum dots in proximitized Rashba nanowires. Physical Review B, 2018, 98, .	3.2	114
60	From fractional boundary charges to quantized Hall conductance. Physical Review B, 2018, 98, .	3.2	22
61	Renormalization of the quantum dot <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>g</mml:mi></mml:math> -factor in superconducting Rashba nanowires. Physical Review B, 2018, 98, .	3.2	14
62	Proximity effect in a two-dimensional electron gas coupled to a thin superconducting layer. Beilstein Journal of Nanotechnology, 2018, 9, 1263-1271.	2.8	23
63	Lifetime of Majorana qubits in Rashba nanowires with nonuniform chemical potential. Physical Review B, 2018, 98, .	3.2	24
64	Rashba sandwiches with topological superconducting phases. Physical Review B, 2018, 97, .	3.2	14
65	Conductance of fractional Luttinger liquids at finite temperatures. Physical Review B, 2018, 98, .	3.2	9
66	Boundary spin polarization as a robust signature of a topological phase transition in Majorana nanowires. Physical Review B, 2018, 98, .	3.2	34
67	Magnonic quantum Hall effect and Wiedemann-Franz law. Physical Review B, 2017, 95, .	3.2	70
68	Nuclear-spin-induced localization of edge states in two-dimensional topological insulators. Physical Review B, 2017, 96, .	3.2	61
69	Finite-size effects in a nanowire strongly coupled to a thin superconducting shell. Physical Review B, 2017, 96, .	3.2	44
70	Low-field topological threshold in Majorana double nanowires. Physical Review B, 2017, 96, .	3.2	32
71	Floquet Majorana fermions and parafermions in driven Rashba nanowires. Physical Review B, 2017, 95, .	3.2	81
72	Spin-dependent coupling between quantum dots and topological quantum wires. Physical Review B, 2017, 96, .	3.2	55

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73	Destructive interference of direct and crossed Andreev pairing in a system of two nanowires coupled via an <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>s</mml:mi></mml:math> -wave superconductor. Physical Review B, 2017, 96, .	3.2	26
74	Three-dimensional fractional topological insulators in coupled Rashba layers. Physical Review B, 2017, 96, .	3.2	14
75	Magnonic topological insulators in antiferromagnets. Physical Review B, 2017, 96, .	3.2	101
76	Quantum Dynamics of Skyrmions in Chiral Magnets. Physical Review X, 2017, 7, .	8.9	40
77	DIII topological superconductivity with emergent time-reversal symmetry. Physical Review B, 2017, 96, .	3.2	24
78	Spin and charge signatures of topological superconductivity in Rashba nanowires. Physical Review B, 2017, 96, .	3.2	52
79	Probing atomic structure and Majorana wavefunctions in mono-atomic Fe chains on superconducting Pb surface. Npj Quantum Information, 2016, 2, .	6.7	283
80	Fractional boundary charges in quantum dot arrays with density modulation. Physical Review B, 2016, 94, .	3.2	32
81	Tomography of Majorana fermions with STM tips. Physical Review B, 2016, 94, .	3.2	41
82	Universal quantum computation with hybrid spin-Majorana qubits. Physical Review B, 2016, 94, .	3.2	81
83	Topological phases of inhomogeneous superconductivity. Physical Review B, 2016, 93, .	3.2	49
84	Majorana bound states in magnetic skyrmions. Physical Review B, 2016, 93, .	3.2	99
85	Topological Floquet Phases in Driven Coupled Rashba Nanowires. Physical Review Letters, 2016, 116, 176401.	7.8	98
86	Long-distance entanglement of spin qubits via quantum Hall edge states. Physical Review B, 2016, 93, .	3.2	22
87	From coupled Rashba electron- and hole-gas layers to three-dimensional topological insulators. Physical Review B, 2016, 93, .	3.2	9
88	Chiral and nonchiral edge states in quantum Hall systems with charge density modulation. Physical Review B, 2016, 93, .	3.2	8
89	Theory of time-reversal topological superconductivity in double Rashba wires: symmetries of Cooper pairs and Andreev bound states. Progress of Theoretical and Experimental Physics, 2016, 2016, 083I01.	6.6	44
90	Fast long-distance control of spin qubits by photon-assisted cotunneling. Physical Review B, 2015, 92, .	3.2	19

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91	Impurity-induced quantum phase transitions and magnetic order in conventional superconductors: Competition between bound and quasiparticle states. Physical Review B, 2015, 92, .	3.2	24
92	Antiferromagnetic nuclear spin helix and topological superconductivity inC13nanotubes. Physical Review B, 2015, 92, .	3.2	33
93	Proximity-Induced<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>Ï€</mml:mi></mml:math>Josephson Junctions in Topological Insulators and Kramers Pairs of Majorana Fermions. Physical Review Letters, 2015, 115, 237001.	7.8	68
94	Integer and fractional quantum anomalous Hall effect in a strip of stripes model. Physical Review B, 2015, 91, .	3.2	42
95	Fractional charge and spin states in topological insulator constrictions. Physical Review B, 2015, 92, .	3.2	48
96	Fermionic and Majorana bound states in hybrid nanowires with non-uniform spin-orbit interaction. European Physical Journal B, 2015, 88, 1.	1.5	76
97	Superconducting gap renormalization around two magnetic impurities: From Shiba to Andreev bound states. Physical Review B, 2015, 92, .	3.2	47
98	Majorana fermions in Ge/Si hole nanowires. Physical Review B, 2014, 90, .	3.2	62
99	Time-reversal invariant parafermions in interacting Rashba nanowires. Physical Review B, 2014, 90, .	3.2	150
100	Kramers pairs of Majorana fermions and parafermions in fractional topological insulators. Physical Review B, 2014, 90, .	3.2	111
101	Renormalization of anticrossings in interacting quantum wires with Rashba and Dresselhaus spin-orbit couplings. Physical Review B, 2014, 89, .	3.2	22
102	Transport Signatures of Fractional Fermions in Rashba Nanowires. Physical Review Letters, 2014, 112, 196803.	7.8	39
103	Quantum spin Hall effect in strip of stripes model. Physical Review B, 2014, 90, .	3.2	63
104	Integer and fractional quantum Hall effect in a strip of stripes. European Physical Journal B, 2014, 87, 1.	1.5	52
105	Helical nuclear spin order in a strip of stripes in the quantum Hall regime. European Physical Journal B, 2014, 87, 1.	1.5	40
106	Parafermions in an Interacting Nanowire Bundle. Physical Review Letters, 2014, 112, 246403.	7.8	95
107	RKKY interaction in carbon nanotubes and graphene nanoribbons. Physical Review B, 2013, 87, .	3.2	80
108	Giant Spin-Orbit Interaction Due to Rotating Magnetic Fields in Graphene Nanoribbons. Physical Review X, 2013, 3, .	8.9	81

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109	Fractional Fermions with Non-Abelian Statistics. Physical Review Letters, 2013, 110, 126402.	7.8	49
110	Topological Superconductivity and Majorana Fermions in RKKY Systems. Physical Review Letters, 2013, 111, 186805.	7.8	416
111	Correlations between Majorana Fermions Through a Superconductor. Physical Review Letters, 2013, 111, 056802.	7.8	74
112	Spintronics in MoS<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>2</mml:mn></mml:msub></mml:math>monolayer quantum wires. Physical Review B, 2013, 88, .	3.2	135
113	Topological Edge States and Fractional Quantum Hall Effect from Umklapp Scattering. Physical Review Letters, 2013, 111, 196401.	7.8	41
114	Local spin susceptibilities of low-dimensional electron systems. Physical Review B, 2013, 88, .	3.2	31
115	Towards a realistic transport modeling in a superconducting nanowire with Majorana fermions. Physical Review B, 2013, 87, .	3.2	301
116	Transition from Fractional to Majorana Fermions in Rashba Nanowires. Physical Review Letters, 2012, 109, 236801.	7.8	147
117	Exchange-based CNOT gates for singlet-triplet qubits with spin-orbit interaction. Physical Review B, 2012, 86, .	3.2	46
118	Helical states in curved bilayer graphene. Physical Review B, 2012, 86, .	3.2	57
119	Electric-field-induced Majorana Fermions in Armchair Carbon Nanotubes. Physical Review Letters, 2012, 108, 196804.	7.8	93
120	Composite Majorana fermion wave functions in nanowires. Physical Review B, 2012, 86, .	3.2	176
121	Carbon nanotubes in electric and magnetic fields. Physical Review B, 2011, 84, .	3.2	86
122	Helical Modes in Carbon Nanotubes Generated by Strong Electric Fields. Physical Review Letters, 2011, 106, 156809.	7.8	69
123	Spin-selective Peierls transition in interacting one-dimensional conductors with spin-orbit interaction. Physical Review B, 2010, 82, .	3.2	186